All of these issues could become moot if the cellular industry simply applied some of the same processes that have been utilized for years to handle the service known as "Follow-Me-Roaming", which allows a subscriber to roam in a distant city and have any calls directed to his handset delivered to him wherever he may be located.

The "Follow-Me-Roaming" process depends upon the use of "pseudo-ANI", which is a substitute telephone number used to uniquely identify a non-local handset MIN / ESN with a "local" telephone number. The service provides for the forwarding of calls directed to the roaming handset MIN / ESN by assigning a temporary substitute telephone number which is a dialable North American Numbering Plan (NANP) telephone number. The process works as follows:

1. Roaming Customer (RC) MIN (619) 262-1234 from city "A" enters city "R" and presses *18 to register with the Mobile Telephone Switching Office (MTSO) in city "R" by reporting his MIN / ESN, and turn on "Call Follow".
2. City "R" MTSO assigns RC a temporary pseudo-ANI (NANP (202) 885-4321) as a local identifier and sends a "Call-Forward" order to city "A" instructing RC's home MTSO to forward any calls directed to MIN (619) 262-1234 (RC) to pseudo-ANI (NANP (202) 885-4321).
3. When someone calls RC MIN (619) 262-1234 and the call arrives at city "A" MTSO for completion, City "A" immediately forwards the call to NANP (202) 885-4321, which is routed by the telephone system to city "R" MTSO for completion.
4. When city "R" MTSO receives a call directed to NANP (202) 885-4321, it will translate this into a local call directed to RC MIN (619) 262-1234.
5. RC MIN (619) 262-1234 is always addressed by the MTSO as (619) 262-1234 and never knows nor cares about the pseudo-ANI (202) 885-4321 that is being used to route calls to this MTSO.
6. The pseudo-ANI for RC MIN (619) 262-1234 is assigned for a limited time period and will expire at the end of the day it was assigned. The city "R" MTSO will issue a call forward cancel order to city "A" MTSO when the pseudo-ANI expires.
7. Should RC MIN (619) 262-1234 remain in city "R" and register anew with the MTSO after midnight, the city "R" MTSO will repeat the process but will probably use a different pseudo-ANI for routing as the previous one was released and in all likely-hood was assigned to another roaming customer.

This process of using a substitute NANP telephone number (pseudo-ANI) to route calls within and between various systems is well known and has been practiced for a number of years. The assigning MTSO maintains a cross reference list of the pseudo-ANIs to handset MIN / ESN and circulates and reassigns the pseudo-ANIs as often as necessary.

Using this process of assigning a dialable substitute local telephone number to a handset MIN / ESN by the MTSO can resolve most of the 911 call-back issues. If the MTSO were to assign a temporary substitute telephone number (Pseudo-ANI) at the time of the 911 call origination and then report the substitute telephone number to the PSAP instead of reporting the actual handset MIN, or lack thereof, the PSAP operator could, in most instances, call-back the user in the event of disconnect. This substitute telephone number is a local number and is dialed as any other type of local call by the PSAP operator. If the substitute telephone number is delivered by the telephone company to BOTH of the MTSO's then both sides will seek to contact the handset MIN / ESN that has been assigned this substitute telephone number. The PSAP operator doesn't need to know the caller's actual MIN in this instance as it is the substitute telephone number that provides call-back

The process of assigning a temporary substitute local telephone number (Pseudo-ANI) is as follows:

1. The A-side MTSO receives a 911 call origination order from a "Non-Service Initialized" handset MIN (000) 000-0000 / ESN 1290654321.
2. The A-side MTSO assigns a substitute local telephone number (202) 737-3232 to this handset MIN / ESN and stores the assignment data in its internal routing table.
3. The A-side MTSO notifies the B-side MTSO to store in its internal routing table this substitute telephone number assignment to this handset MIN / ESN.
4. The A-side MTSO completes the call to the appropriate PSAP and delivers the assigned substitute telephone number (202) 737-3232 as the calling party number.
5. Should the call get disconnected and the PSAP operator decide to call-back to this handset, the PSAP operator will dial the assigned substitute local telephone number (202) 737-3232.
6. The local telephone company delivers the call simultaneously to both the A-side and B-side MTSO's.
7. Upon receipt of a call directed to substitute telephone number (202) 737-3232, each MTSO extracts the handset MIN / ESN from its assignment routing table and each MTSO pages MIN (000) 000-0000.
8. Every handset in the system that contains a MIN (000) 000-0000 will respond automatically to this page.

(NOTE: This is why the Alliance suggested to the Commission that every handset be manufactured with a unique MIN instead of the current practice of using a Null MIN. The Commission misunderstood this suggestion by assuming the MIN had to be a dialable telephone number.)

9. The MTSO can limit its page order to only the cell site over which it last had contact with this handset or it could page system wide. In either event, the paged handset will respond with an automatic page order acknowledgement which contains the handset MIN / ESN.
10. Only the correct handset MIN / ESN match will allow the MTSO to issue the voice channel order and only over the cell site through which the page order acknowledgement was received.
11. The desired handset will go to the assigned voice channel and when the user answers the call, conversation will be allowed and the local telephone company will drop the call to the other MTSO.

The substitute telephone number assignment will have a limited life and when the assignment window expires, the pseudo-ANI will be returned to the pool and available for reassignment. The volume of traffic expected and the length of the assignment window will determine how large the pool of temporary substitute numbers needs to be.

This call-back process could be implemented today by the cellular carriers at a fairly nominal cost. This solution is software based and resides in the MTSO intelligence. The elements of this process already exist and the creation of the MTSO control program should not exceed $250,000 for each switch manufacturer. The cost to implement the resultant program into the MTSO systems should not exceed $50,000 per system. The only recurring costs involved in the process is the pool of substitute local telephone numbers which both sides draw from for temporary assignment.